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ABSTRACT

This document contains two learning activity packets (LAPs) for the "orientation and safety" instructional area of a Machine Shop I course. The two LAPs cover the following topics: orientation and general shop safety. Each LAP contains a cover sheet that describes its purpose, an introduction, and the tasks included in the LAP; learning steps (checklist); and various assignment sheets. Materials are illustrated with line drawings. The LAPs are referenced to a curriculum guide for the Machine Shop I course. (KC)

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ED279816

Learning Activity Packets (LAPs)

Machine Shop I

Section A — Orientation

LAP #1 — Orientation
LAP #2 — General Shop Safety

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State Department of Vocational and Technical Education CIMC Stillwater, Oklahoma LEARNING ACTIVITY PACKETS

for MACHINE SHOP I

LAP NO. _____ CODE: _____

MAJOR INSTRUCTIONAL AREA

ORIENTATION AND SAFETY

INSTRUCTIONAL UNIT

MACHINE TRADES ORIENTATION
SECTION A--UNIT I

LEARNING ACTIVITY PACKET NO.

1

PREREQUISITE LAP(S)

None

PURPOSE: This Learning Activity Packet (LAP) outlines the study activities for "Machine Trades Orientation." Accomplishing these procedures will aid the student in attaining a working knowledge of this area of training.

INTRODUCTION: The course of study in this LAP will help the student become able to evaluate the occupational outlook in the machine trades and to become familiar with places of employment, worker personal traits, and basic machines involved in the machine trades.

TASKS INCLUDED IN THIS LAP:

None

MACHINE SHOP I
MACHINE TRADES ORIENTATION

Section A--Unit I

LEARNING STEPS

Check the Following
Blanks as You Complete
the Required Steps

_____1.	Read	Unit and Specific Objectives, page 1-A.
_____2.	Study	Information Sheet Sections I-V, pages 5-A through 15-A.
_____3.	Do	Assignment Sheet #1--Survey Job Opportunities for Machine Trades Workers, page 17-A.
_____4.	Do	LAP Assignment Sheet #1, LAP page 3.
_____5.	Do	LAP Assignment Sheet #2, LAP page 15.
_____6.	Study	Information Sheet Sections VI and VII, page 15-A.
_____7.	Do	Assignment Sheet #2--Interview a Machine Trades Employee, page 19-A.
_____8.	Do	LAP Assignment Sheet #3, LAP page 23.
_____9.	Do	LAP Assignment Sheet #4, LAP page 25.
_____10.	Complete	Critical Steps for Job Interviewing program (see your instructor).

_____11.	Do	Assignment Sheet #3 -- Complete a Job Application Form, page 21-A.
_____12.	Stop.	Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, proceed to Step 14. Otherwise, continue to Step 13.
_____13.	Do	LAP Assignment Sheet #5, LAP page 27.
_____14.	Review	Information Sheet (page 5-A) and Assignment Sheets.
_____15.	Take	Machine Trades Orientation Unit I Test (see your instructor). If you score 85 percent or more, continue to the next assigned Learning Activity Packet. Otherwise, discuss additional study requirements and possible re-testing with your instructor.

ORIENTATION AND SAFETY
UNIT I

LAP ASSIGNMENT SHEET #1--THE MACHINE TRADES

NAME_____ SCORE_____

1. Match job titles associated with machine trades to their correct definitions by writing the number of the job title in the blank beside the correct definition. Definitions continue on the next page.

_____a.	Prepares a machine tool for a particular operation or series of operations; work involves mounting and aligning work-holding devices, setting and adjusting cutters, and establishing procedures for operation.	1.	Set-up person
		2.	Machine tool operator
		3.	Machinist
_____b.	Checks parts against dimensions specified on blueprint; may also check surface finish and general appearance of part.	4.	Instrument maker
		5.	NC and CNC operator
_____c.	Is considered capable of making all set-ups and operating any machine in the shop; reads blueprints, plans the job procedures from the blueprint, makes math calculations, and then makes the part.	6.	Toolroom tender
		7.	Tool and die maker
		8.	Machinist trainee
_____d.	Operates a specific machine; responsible for checking parts, making minor adjustments, and changing tools.	9.	Machine specialist
		10.	NC programmer
_____e.	Scribes or draws lines showing shape, size, hole locations, and other information necessary to complete a job; uses both precision and other tools.	11.	Layout person
		12.	Quality control inspector
_____f.	Is responsible for making special tools that produce parts; knows materials well and has a high degree of skill.		
_____g.	Makes all set-ups; works to a high degree of skill on one particular machine.		
_____h.	Works from prints, sketches, photographs or parts, and must understand machine parts and how they work; has some basic knowledge of welding and electronics.		

_____i. Has completed a course at a vocational-technical school or worked in a related job; must have basic knowledge and be willing to undergo additional training to become a machinist.

_____j. Is responsible for set-up of machine; periodically inspects parts and tooling for tolerance and finish.

_____k. Is responsible for dispensing special tools, keeping tools sharp and in good working condition.

_____l. Works from blueprint to plan sequence of operation and writes the program in the machine language so the part can be made; usually present on initial set-up and run of the part.

2. Describe the occupational outlook for machine trades workers by correcting the following statements. One or more words are incorrect in each statement. Write the correct words in the blanks provided.

a. Machine workers are and will be enjoyed in every state and city in the country.

_____

b. Job openings result from deaths, retirements, transfers to other busses, and advancing trigonometry.

_____ _____

c. Rapid rise in consumer demand for machined, deformed, and moldy products will result in higher employment rates.

_____ _____

d. Employment in various machining occupations is expected to increase at different companies.

_____

e. Machinists have excellent opportunities for advertisements with experiments and special draining.

_____ _____ _____

3. List personal traits and responsibilities necessary for working in machine trades by completing the statements below. The answers are hidden in the word search. Words appear vertically, horizontally, and diagonally, both forward and backward.

M D N Y L T C E R R O C
S A F E T Y H A M O R P
A Y I W N S C V Z L D D
I L D N W O R K A I E I
S N O I T A L U G E R R
U F I J P E T R O U L E
H S K R G C N H E H Y C
T B I X N E K A C T M T
N D L U A F G J N E A I
E Q P T E M P E R C P O
B S L A I R E T A M E N
I N S T R U C T I O N S

a. Operate shop equipment _____.

b. Be _____ conscious and follow _____ regulations.

(NOTE: The same word is used twice in this sentence but appears in the word search only once.)

c. Take _____ readily and follow _____.

d. Sho _____ for work.

e. Have _____ in the trade.

f. Be conscious of waste in _____ and working _____.

g. Be _____ and _____.

h. Be _____.

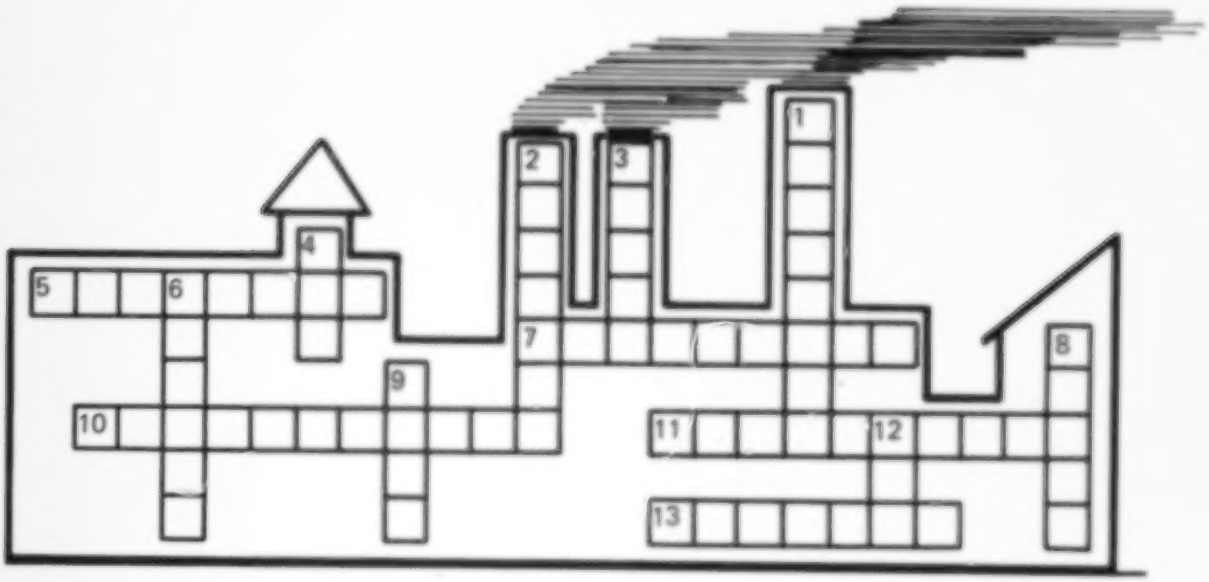
i. Control _____.

j. Attend _____ regularly.

k. Perform equipment _____.

l. Follow company _____.

4. List types of employers of machine trades workers by solving the crossword puzzle below.



a. (1 Down) industry; machined parts include propellers and turbine blades.

b. (2 Down) industries; various small businesses.

c. (3 Down) industry; machined parts include rollers, cutters, and presses for wood pulp.

d. (4 Down) and (5 Across) industries; machined parts include tanks, vats, valves, and pipe joints.

e. (6 Down) industry; machined parts include propellers, hardware, and accessories for boats.

f. (7 Across) industry; machined parts include precision instruments and parts for rockets and spacecraft.

g. (12 Down) (8 Down) industries; machined parts include valves, connections, and special tools for petroleum exploration, pumping, transport, storage, and refining.

h. (9 Down) machinery industry; machined parts for equipment used in cultivation and harvest of crops.

i. (10 Across) shops; involves production of parts and tools for the repair and upkeep of equipment, vehicles, and machinery.

j. (11 Across) industry; machined parts include tools for repairing and producing vehicles as well as parts used in their manufacture.

k. (13 Across) industry; machined parts include rollers, cutters, and dies used in clothing material production.

5. Identify common types of equipment used in machine trades by placing an "X" beside the most correct description under each illustration.

a.

_____1) Rubber mallet

_____2) Ball peen hammer

_____3) Claw hammer

b.

_____1) Punch

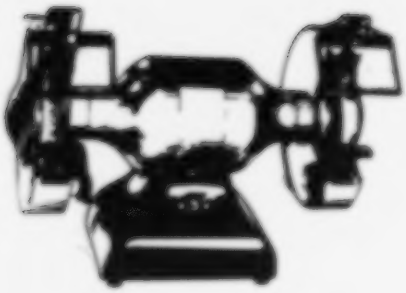
_____2) Awl

_____3) Chisel

c.

_____1) C-clamp
_____2) Measuring tool
_____3) Washer compressor

d.



_____1) Dual-head rotary saw
_____2) Pipe clamp
_____3) Bench or pedestal grinder

e.

_____1) Layout tool
_____2) Finishing tool
_____3) Threading tool

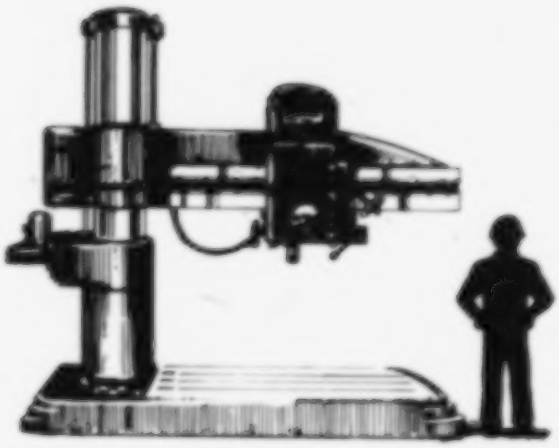
f.

_____1) Boring tool set
_____2) Inspection tool
_____3) Keyway selector

g.

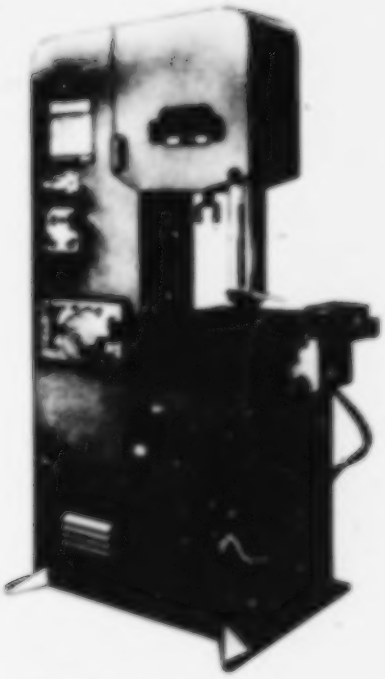
_____1) Drill press
_____2) Laser inspection table
_____3) Vertical band saw

h.



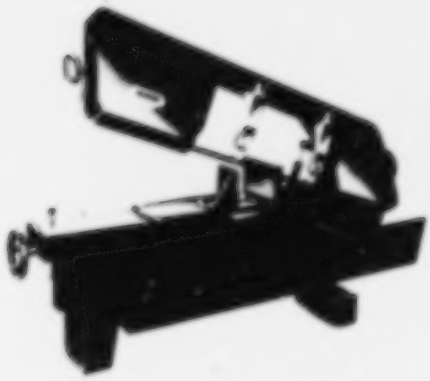
_____1) Radial drill press
_____2) Magnetic hoist
_____3) Horizontal mill

i.



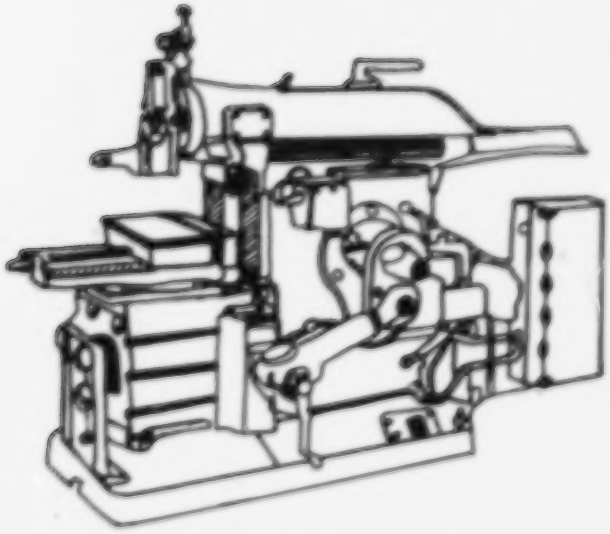
_____1) Rotary file
_____2) Vertical band saw
_____3) Drill press

j.



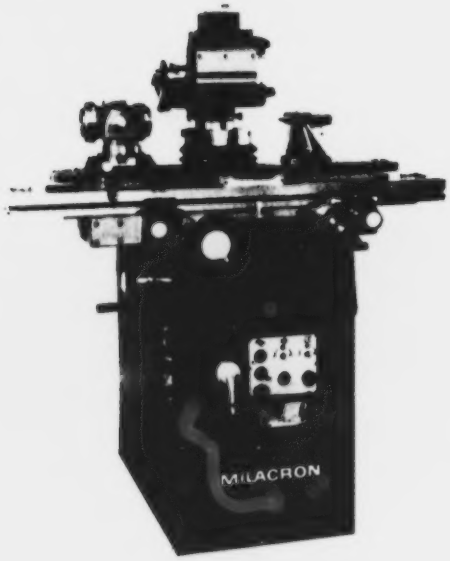
_____1) Sheet metal clamp
_____2) Rotary file
_____3) Horizontal band saw

k.



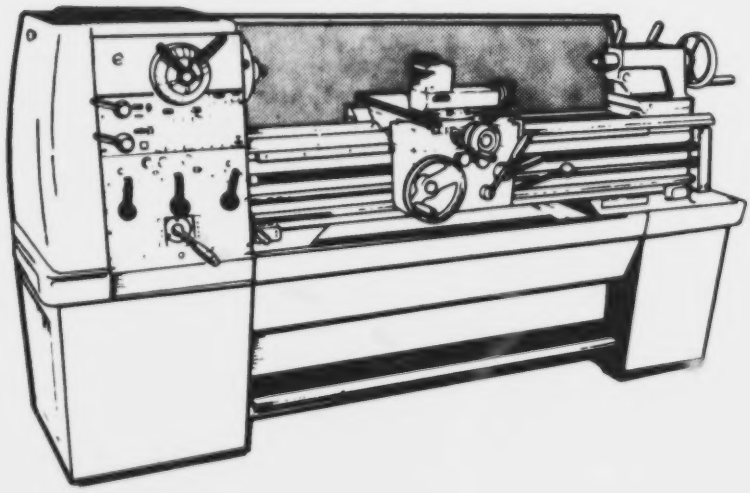
_____1) Horizontal mill
_____2) Cylindrical grinder
_____3) Shaper

l.



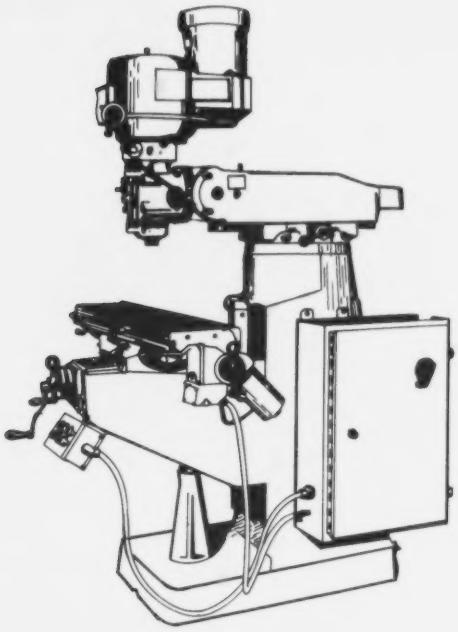
_____1) Tool and cutter grinder
_____2) Torque converter
_____3) Bench grinder

m.



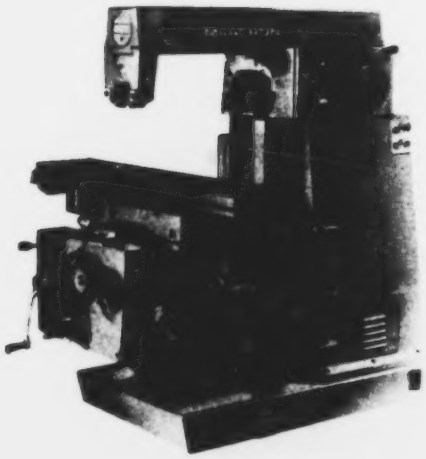
_____1) Horizontal drill press
_____2) Engine lathe
_____3) Braze welder

n.



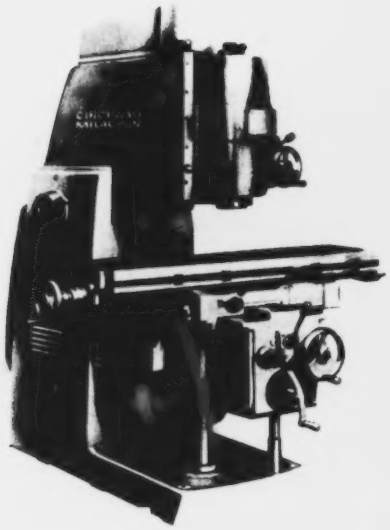
_____1) Ram and turret mill
_____2) Radial drill press
_____3) Vertical lathe

o.



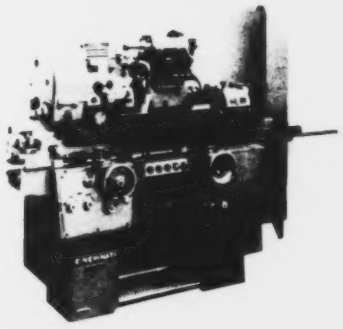
_____1) Drive or direct input shunt lathe
_____2) Horizontal mill
_____3) Shaper

p.

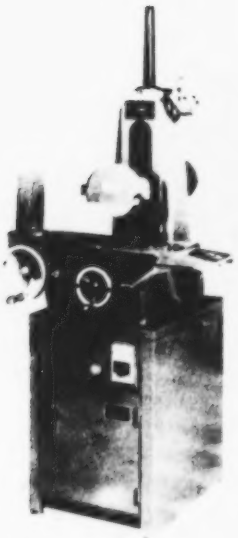


_____1) Vertical mill
_____2) Adjustable band saw
_____3) Drill press

q.

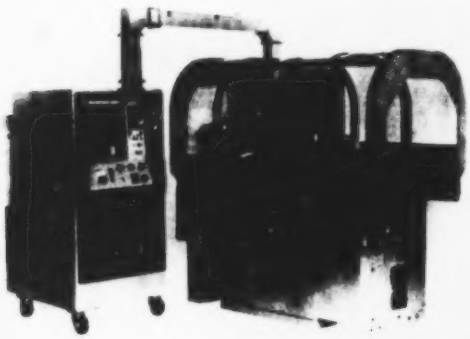


_____1) Engine lathe
_____2) Cylindrical grinder
_____3) Horizontal mill



_____1) Surface grinder
_____2) Vertical facer
_____3) Shaper-Transverse lathe

s.



_____1) Bench lathe
_____2) Universal power press
_____3) CNC machine

6. Stop. Have your instructor evaluate your Assignment Sheet and mark the areas below which require additional study.

   Refer to the Information Sheet, Sections:

   _____I _____IV

   _____II _____V

   _____III

   If none of the above areas is checked, proceed to LAP Step 6. Otherwise, study the required areas and then go to LAP Step 5.

ORIENTATION AND SAFETY
UNIT I

LAP ASSIGNMENT SHEET #2--THE MACHINE TRADES

NAME_____ SCORE_____

1. Describe the work done or skill level of each of the following job descriptions.

a. Instrument maker -- _____

_____

b. Layout person -- _____

_____

c. NC and CNC operator -- _____

_____

d. NC programmer -- _____

_____

e. Machinist -- _____

_____

f. Machine specialist -- _____

_____

g. Machinist trainee -- _____

_____

h. Machine tool operator -- _____

_____

i. Set-up person -- _____

_____

j. Tool and die maker -- _____

_____

k. Toolroom tender -- _____

_____

1. Quality control inspector -- _____

_____

2. Write five statements concerning the occupational outlook for machine trades workers.

a.

b.

c.

d.

e.

3. Describe personal traits and responsibilities necessary for working in machine trades by explaining how each of the following words or phrases applies to those traits and responsibilities.

a. Shop equipment -- _____

_____

b. Safety -- _____

_____

c. Directions -- _____

_____

d. Enthusiasm -- _____

_____

e. Pride -- _____

_____

f. Waste -- _____

_____

g. Housekeeping -- _____

_____

h. Time -- _____

_____

i. Temper -- _____

_____

j. Attendance -- _____

_____

k. Maintenance -- _____

_____

l. Regulations -- _____

_____

4. Name ten types of employers of machine trades workers.

a.

b.

c.

d.

e.

f.

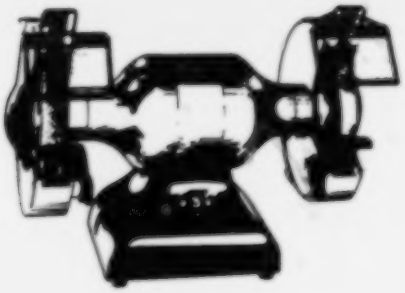
g.

h.

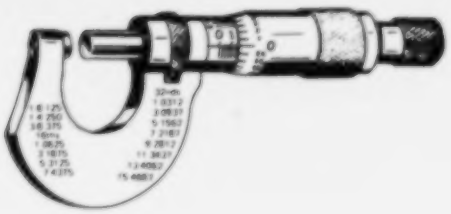
i.

j.

5. Identify the following types of equipment used in machine trades.

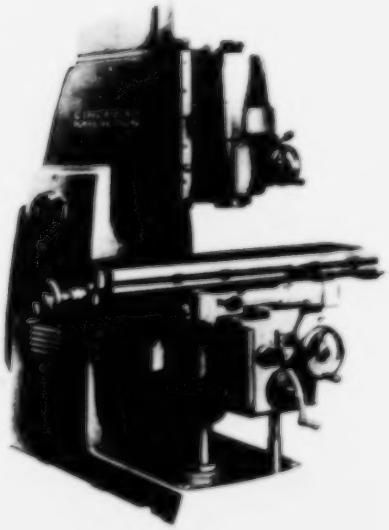


a. _____



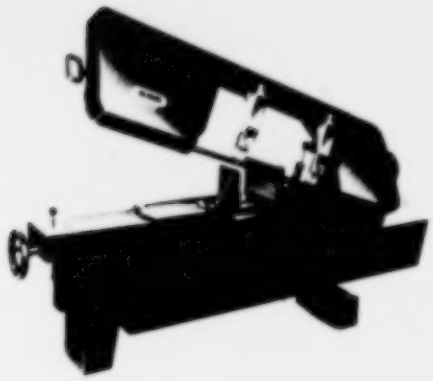
b. _____

c. _____

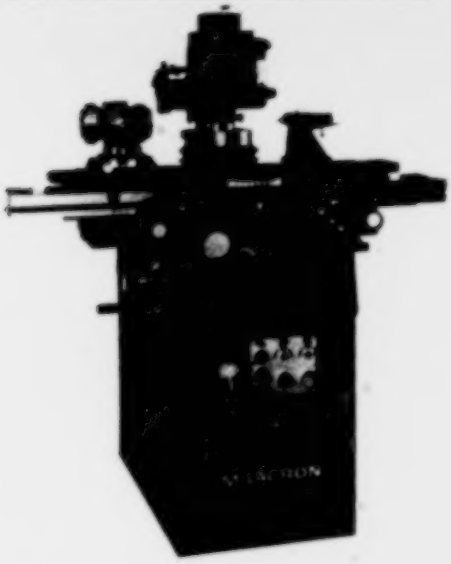


d. _____

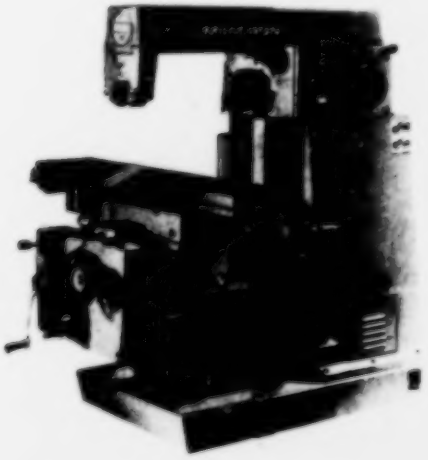
e. _____



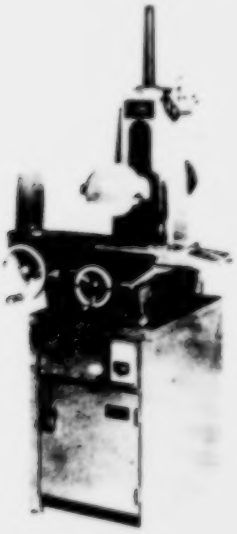
f. _____



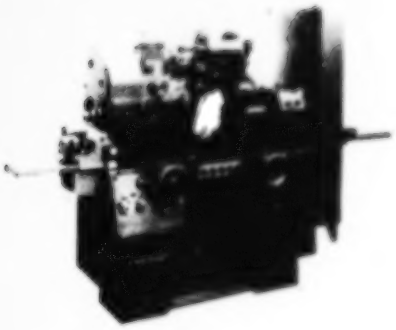
g. _____



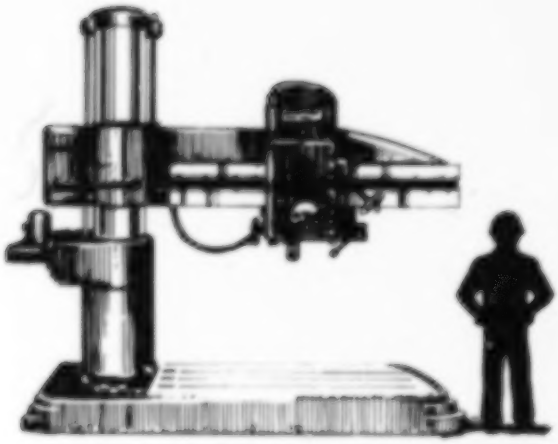
h. _____



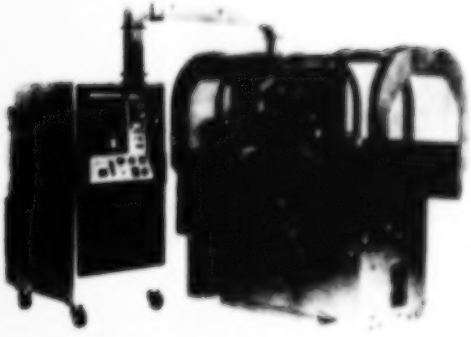
i. _____



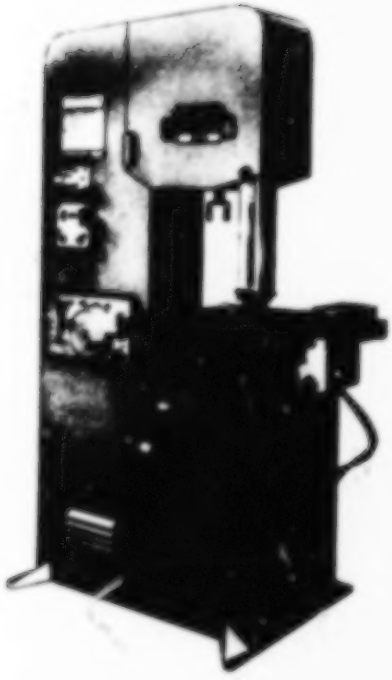
j. _____



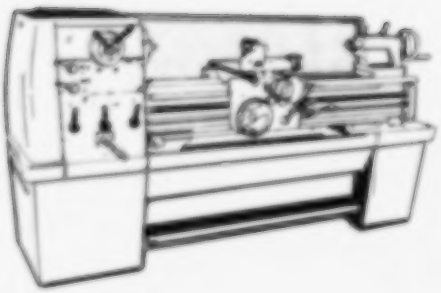
k. _____



l. _____

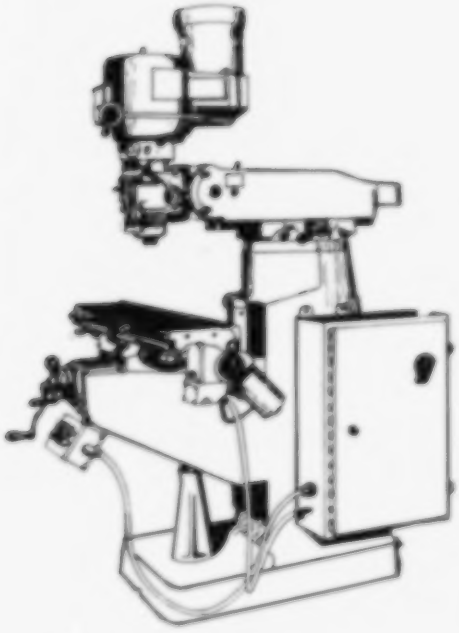


m. _____

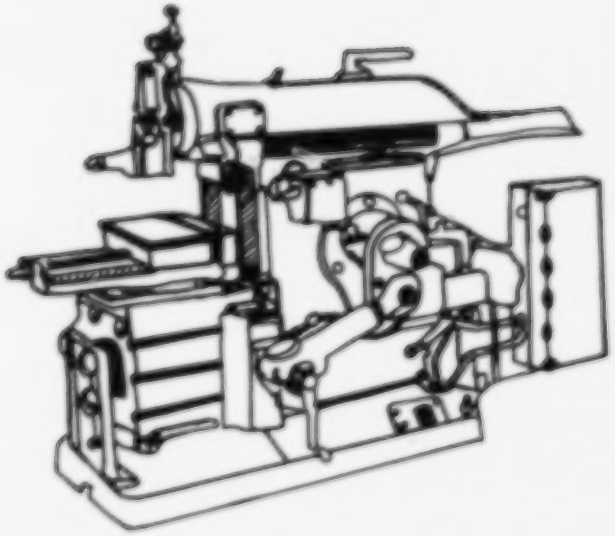


n. _____

o. _____



p. _____



q. _____

s. _____

r. _____

6. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 6. If additional study is required, discuss a study program with your instructor. Once you have completed that program to your instructor's satisfaction, continue to LAP Step 6.

ORIENTATION AND SAFETY
UNIT I

LAP ASSIGNMENT SHEET #3--MACHINE TRADES EMPLOYMENT

NAME _____ SCORE _____

1. List guidelines for completing a job application form by supplying the missing words in these statements. Check your results by unscrambling the circled letters to make a word that is a part of this area of your studies.

   a. Print or write _ _ _ _ _ _ _ _.

   b. Give _ _ _ _ _ _ and _ _ _ _ _ _ _ of previous employment.

   c. List three or more _ _ _ _ _ _ _ _ _ _ _ with correct addresses and _ _ _ _ _ _ _ _ _ _ _ _.

   d. List dates and places where you attended _ _ _ _ _ _ _.

   e. Answer all questions, _ _ _ _ and _ _ _ _ form.

2. Certain words in the following statements about working conditions and job benefits available to machine trades workers have been written in code. Numbers have been used in place of letters. See if you can solve the code. Write the decoded words in the spaces provided.

   a. 1-16-7-24-6-24-13-17 compare with those of any 17-19-6-11-11-1-10 industrial worker.

   _____ _____

   b. 17-15-21-4-17 are relatively clean and 25-1-11-11 - 11-6-13-15-12-1-10.

   _____ _____-_____

   c. Machining work is generally not 17-12-7-1-24-23-21-23-17; however, workers usually stand at the 9-21-5 and move about 20-7-1-26-23-1-24-12-11-8.

   _____ _____ _____

   d. Companies usually pay 15-21-11-6-10-16-8-17, 3-16-22-16-12-6-12-24, 6-24-17-23-7-16-24-22-1, and other fringe benefits.

   _____ _____ _____

   e. Rapid 16-10-3-16-24-22-1-2-1-24-12 is possible for the 10-1-10-22-16-12-1-10 worker.

   _____ _____

f. Demand is 11-16-7-13-1 for persons to be hired as 12-7-16-6-24-1-1-17.

_____ _____

CODE: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

3. Stop. Have your instructor evaluate your Assignment Sheet and mark the areas below which require additional study.

Refer to Information Sheet, Sections:

_____VI _____VII

If neither of the above areas is checked, proceed to LAP Step 10. Otherwise, study the required areas and then continue to LAP Step 9.

ORIENTATION AND SAFETY
UNIT I

LAP ASSIGNMENT SHEET #4--MACHINE TRADES EMPLOYMENT

NAME_____ SCORE_____

1. List five guidelines for completing a job application form.

   a.

   b.

   c.

   d.

   e.

2. Describe working conditions and job benefits available to machine trades workers by explaining how each of the following words or phrases applies to machine trades.

   a. Earnings -- _____

   _____

   b. Shop conditions -- _____

   _____

   c. Physical work of machining -- _____

   _____

   d. Fringe benefits -- _____

   _____

   e. Advancement -- _____

   _____

   f. Hiring demand -- _____

   _____

3. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 10. If additional study is required, discuss a study program with your instructor Once you have completed that program to your instructor's satisfaction, continue to LAP Step 10.

ORIENTATION AND SAFETY
UNIT I

LAP ASSIGNMENT SHEET #5--COMPLETE A JOB APPLICATION FORM

NAME_____ SCORE_____

1. Choose one of the jobs you found in Assignment Sheet #1 and apply for it by filling out the application form on the next page. Complete all questions on the form. Put "NA" (not applicable) on questions that do not apply to you. Once you have completed the application form, continue to Step 2.

2. Stop. Have your instructor evaluate your job application form. Your instructor will offer advice in improving any weak areas found in your completion of this assignment. Continue to LAP Step 10.

"WE ARE AN EQUAL OPPORTUNITY EMPLOYMENT COMPANY. WE ARE DEDICATED TO A POLICY OF NON-DISCRIMINATION IN EMPLOYMENT ON ANY BASIS INCLUDING RACE, CREED, COLOR, AGE, SEX, RELIGION OR NATIONAL ORIGIN OR PHYSICAL DEFECTS."

APPLICATION FOR EMPLOYMENT

PERSONAL INFORMATION

DATE _____

NAME _____
LAST FIRST MIDDLE

PRESENT ADDRESS _____
STREET CITY STATE ZIP

PERMANENT ADDRESS _____
STREET CITY STATE ZIP

PHONE NO. SOCIAL SECURITY NUMBER _____

REFERRED BY _____

EMPLOYMENT DESIRED

POSITION DATE YOU CAN START SALARY DESIRED

ARE YOU EMPLOYED NOW? IF SO, MAY WE INQUIRE OF YOUR PRESENT EMPLOYER

EVER APPLIED TO THIS COMPANY BEFORE? WHERE WHEN

EDUCATION	NAME AND LOCATION OF SCHOOL	YEARS ATTENDED	DATE GRADUATED	SUBJECTS STUDIED
GRAMMAR SCHOOL				
HIGH SCHOOL				
COLLEGE				
TRADE, BUSINESS, OR CORRESPONDENCE SCHOOL				

SUBJECTS OF SPECIAL STUDY OR RESEARCH WORK

U.S. MILITARY OR NAVAL SERVICE RANK PRESENT MEMBERSHIP IN NATIONAL GUARD OR RESERVES

ACTIVITIES OTHER THAN RELIGIOUS (CIVIC, ATHLETIC, FRATERNAL, ETC.)

Exclude organizations, the name or character of which indicates the race, creed, color, or national origin of its members.

(CONTINUED ON OTHER SIDE)

FORMER EMPLOYERS (LIST BELOW LAST FOUR EMPLOYERS, STARTING WITH LAST ONE FIRST.)

DATE MONTH & YEAR	NAME AND ADDRESS OF EMPLOYER	SALARY	POSITION	REASON FOR LEAVING
FROM				
TO				
FROM				
TO				
FROM				
TO				
FROM				
TO				

REFERENCES: Give below the names of two persons not related to you, whom you have known at least one year.

	NAME	ADDRESS	BUSINESS	YEARS ACQUAINTED
1				
2				

PHYSICAL RECORD:
List any physical defects

WERE YOU EVER INJURED? GIVE DETAILS

HAVE YOU ANY DEFECTS IN HEARING? IN VISION? IN SPEECH?

IN CASE OF EMERGENCY NOTIFY

NAME ADDRESS PHONE NO.

I AUTHORIZE INVESTIGATION OF ALL STATEMENTS CONTAINED IN THIS APPLICATION. I UNDERSTAND THAT MISREPRESENTATION OR OMISSION OF FACTS CALLED FOR IS CAUSE FOR DISMISSAL. FURTHER, I UNDERSTAND AND AGREE THAT MY EMPLOYMENT IS FOR NO DEFINITE PERIOD AND MAY, REGARDLESS OF THE DATE OF PAYMENT OF MY WAGES AND SALARY, BE TERMINATED AT ANY TIME WITHOUT ANY PREVIOUS NOTICE.

DATE SIGNATURE

DO NOT WRITE BELOW THIS LINE

TO BE COMPLETED DAY EMPLOYMENT BEGINS DATE

HEIGHT WEIGHT AGE DATE OF BIRTH

SINGLE MARRIED WIDOWED CITIZEN U.S.A. SEX

THE ABOVE INFORMATION NEEDED FOR PENSION, HOSPITALIZATION, INSURANCE, ETC., AND NOT FOR HIRING PURPOSES

INTERVIEWED BY DATE REMARKS

NEATNESS		CHARACTER	
PERSONALITY		ABILITY	

HIRED FOR DEPT. POSITION WILL REPORT SALARY WAGES

APPROVED: 1. 2. 3.

EMPLOYMENT MANAGER DEPT. HEAD GENERAL MANAGER

State Department of Vocational and Technical Education CIMC Stillwater, Oklahoma LEARNING ACTIVITY PACKETS

for MACHINE SHOP I

LAP NO._____ CODE:_____

MAJOR INSTRUCTIONAL AREA

ORIENTATION AND SAFETY

INSTRUCTIONAL UNIT

GENERAL SHOP SAFETY
SECTION A--UNIT I

LEARNING ACTIVITY PACKET NO.

2

PREREQUISITE LAP(S)

1

PURPOSE: This Learning Activity Packet (LAP) outlines the study activities for "General Shop Safety." Accomplishing these procedures will aid the student in attaining a working knowledge of this area of training.

INTRODUCTION: The course of study in this LAP will help the student become able to evaluate unsafe situations and describe rules for shop and personal safety.

TASKS INCLUDED IN THIS LAP:

None

MACHINE SHOP I
GENERAL SHOP SAFETY
Section A--Unit II

LEARNING STEPS

Check the Following
Blanks as You Complete
the Required Steps.

_____ 1. Read — Unit and Specific Objectives, page 37-A.

_____ 2. Study — Information Sheet, pages 41-A through 47-A.

_____ 3. Watch — Slide/tape presentation "General Shop Safety" (A-II).

_____ 4. Do — LAP Assignment Sheet #1, LAP page 3.

_____ 5. Do — LAP Assignment Sheet #2, LAP page 9.

_____ 6. Do — Assignment Sheet #1--Apply Rules for Fire Safety, page 49-A.

_____ 7. Stop. — Have your instructor evaluate your Assignment Sheet. If you score 100 percent, proceed to Step 9. Otherwise, continue to Step 8.

_____ 8. Do — LAP Assignment Sheet #3, LAP page 13.

_____ 9. Do — Assignment Sheet #2--Interpret the Use of Safety Colors in the Shop, page 51-A.

_____10. Stop. — Have your instructor evaluate your Assignment Sheet. If you score 100 percent, proceed to Step 12. Otherwise, continue to Step 11.

_____11.	Do	LAP Assignment Sheet #4, LAP page 15.
_____12.	Do	Assignment Sheet #3--Evaluate Situations Involving Hazards, page 53-A.
_____13.	Stop.	Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, proceed to Step 15. Otherwise, continue to Step 14.
_____14.	Do	LAP Assignment #5, LAP page 17.
_____15.	Do	Assignment Sheet #4--Indicate Willingness to Work Safely by Signing Safety Pledge, page 57-A.
_____16.	Give	Completed Safety Pledge to instructor.
_____17.	Do	Assignment Sheet #5--Complete General Shop Safety Awareness Checklist, page 59-A.
_____18.	Discuss	Your Safety Awareness Checklist with your instructor.
_____19.	Review	Information Sheet (page 39-A) and Assignment Sheets.
_____20.	Take	General Shop Safety Unit II Test (see your instructor). If you score 100 percent, continue to the next assigned Learning Activity Packet. Otherwise, talk to your instructor about additional training requirements and possible re-testing.

ORIENTATION AND SAFETY
UNIT II
LAP ASSIGNMENT SHEET #1--GENERAL SHOP SAFETY

NAME _____ SCORE _____

1. Match terms associated with shop safety on the right to their definitions by writing the number of the term in the blank beside the correct definition.

_____ a. The state or condition of being free from danger, risk, or injury

_____ b. A suddenly-occurring and unintentional event which causes injury or property damage

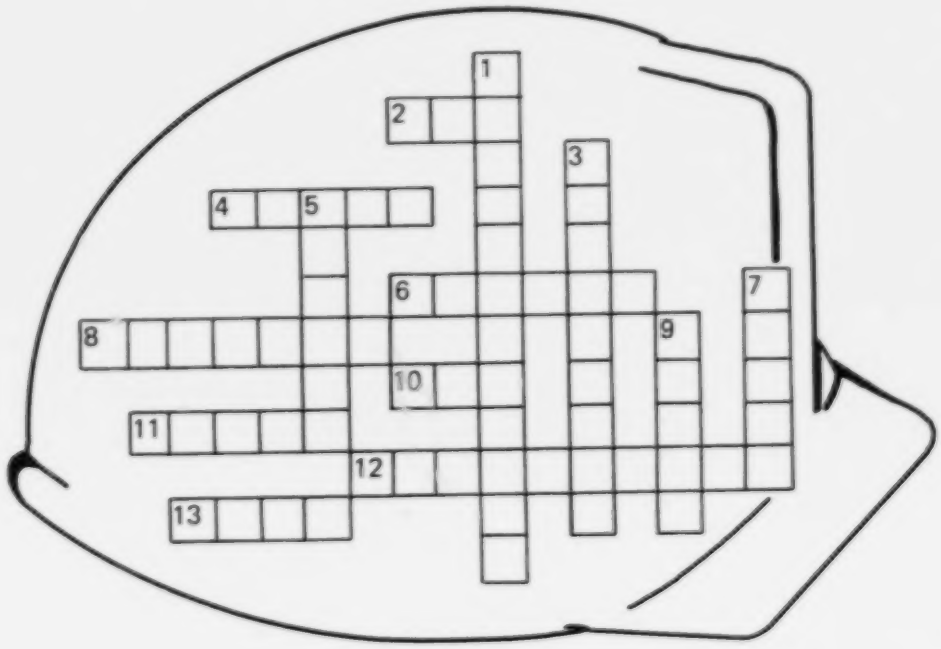
_____ c. The immediate, temporary care given the victim of an accident or sudden illness until the services of a physician can be obtained

_____ d. A source of danger; condition that can cause an accident

_____ e. To put out

1. Extinguish
2. First aid
3. Accident
4. Safety
5. Hazard

2. Describe factors in personal safety by completing the crossword puzzle using the statements below.



a. Clothing--Wear __(12 Across)__ shop clothing; do not wear __(7 Down)__ clothing that can get caught in __(3 Down)__

b. Hair-- __(11 Across)__ hair to prevent it being __(6 Across)__ in revolving equipment

c. Eye protection--Wear __(12 Across)__ eye protection required for the __(2 Across)__ you are doing

d. Head gear--Wear __(13 Across)__ __(10 Across)__ to prevent head injury where __(5 Down)__ equipment is used

e. __(4 Across)__ Area--Keep __(4 Across)__ __(9 Down)__ and free of __(1 Down)__ and __(8 Across)__ substances that can cause someone to fall

3. Describe general shop safety by correcting the statements below. Each statement has one or more incorrect words. Cross out the incorrect word and write a correct word in the space provided.

a. Work area--Clutter causes residents, slows down conductivity, and looks bad. Keep your work area green.

_____ _____ _____

b. Combustible materials--Store in can with peeling lid; keep all flammable materials in decimated area to help eliminate possibility of soiling.

_____ _____ _____

c. Oily rags--Store in closest container with self-sealing lid to eliminate fire buzzards.

_____ _____

d. Jewelry--Before operating machinery, remove water, rinks, and other jewelry which can get caught in moving parts of the machine and cause noise.

_____ _____ _____

e. Safety test--Before operating any machine, you must pass safety test for that machine. This is proof that you understand how to operate it sadly.

_____

f. Machine in operation--Shut off any machines if conductor leaves the shop area; NEVER LEAVE AN OPERATING MACHINE UNDEFENDED.

_____ _____

g. Cleaning on machines--Do not clean on machines as you can slip or fall into machine; also, precision machines must be expensive.

_____ _____ _____

h. Talking to other students while they are operating machinery--This is distracting and can result in rumors or tarnished equipment.

_____ _____

i. Horsefly--Causes accidents and will not be tolerated.

_____

j. Injuries--Report all injuries to students to determine appropriate first aid action and to complete accident quota.

_____ _____

k. Damaged theatrical parts--Report them to instructor; do not try to perform them yourself.

_____ _____

l. Fire--Report large fires to instructor after sounding alarm.

_____ _____

m. Lifting--Lift with your arms and keep your hair straight, or get help; if you do not know how to lift, ask instructor to demonstrate the correct way.

_____ _____

n. Moving objects--Do not touch moving parts because you can get cold, hot, or turned

_____ _____ _____

o. Special safety poster--Use special safety poster when required, as it has been designed for your classroom

_____ _____ _____

p. Guards--Never operate machines with guards off; these guards are installed for protection from grease, rust, dirt, etc.

_____ _____ _____

4. Describe maintenance of clean and orderly shop areas by completing the statements below. The answers are hidden in the following word search. Words appear horizontally, vertically, and diagonally, either forward or backward.

A C C I D E N T S C

Z P W C I L J C O E

K X P L A C E N Q N

A D B E K O T S H T

D G L A A A D Y P R

E M R N I R T E T A

B D J N A G A O E L

R S E Z I U O N M N

I R A H F L V C C A

S H B N S F T I X E

a. Work area--Kept _____ to reduce _____ and present a good _____.

b. Trash--Placed in proper _____.

c. Aisles and traffic areas--Free of _____ to prevent _____ and allow for a fast _____ if necessary.

d. _____--Clean and return to proper _____ when you are through with them so that you and others can find them.

e. Cleaning equipment--Kept in _____ location.

5. Match the classes of fires on the right to their definitions by placing the number of each class of fire in the blank beside its correct definition.

_____ a. Fires that occur with flammable liquids, such as gasoline, oil, grease, paints, and thinners

_____ b. Fires that are caused by burning metal

_____ c. Fires that occur in ordinary combustible materials, such as wood, rags, and rubbish

_____ d. Fires that occur in or near electrical equipment such as motors, switchboards, and electrical wiring

1. Class A
2. Class B
3. Class C
4. Class D

6. Stop. Have your instructor evaluate your Assignment Sheet and mark the areas below which require additional study.

Refer to Information Sheet, Sections:

_____ I	_____ VI
_____ IV	_____ VII
_____ V	

If none of the above study areas is checked, proceed to LAP Step 6. Otherwise, study the required areas and then continue to LAP Step 5.

ORIENTATION AND SAFETY
UNIT II
LAP ASSIGNMENT SHEET #2--GENERAL SHOP SAFETY

NAME _____ SCORE _____

1. Define the following terms.

   a. Accident--_____

   _____

   b. Extinguish--_____

   _____

   c. First aid--_____

   _____

   d. Hazard--_____

   _____

   e. Safety--_____

   _____

2. Describe how each of the following words or phrases applies to personal safety.

   a. Clothing--_____

   _____

   b. Hair--_____

   _____

   c. Eye protection--_____

   _____

   d. Head gear--_____

   _____

   e. Floor area--_____

   _____

3. Describe how each of the following words or phrases applies to general shop safety.

a. Work area--_____

_____

b. Combustible materials--_____

_____

c. Oily rags--_____

_____

d. Jewelry--_____

_____

e. Safety test--_____

_____

f. Machine in operation--_____

_____

g. Leaning on machines--_____

_____

h. Talking to other students while they are operating machines--_____

_____

_____

i. Horseplay--_____

_____

j. Reporting injuries--_____

_____

k. Damaged electrical parts--_____

_____

l. Fire--_____

_____

m. Lifting--_____

_____

n. Moving objects--_____

_____

o. Special safety equipment--_____

_____

p. Guards--_____

_____

4. Explain how each of the following words or phrases applies to the maintenance of clean and orderly shop areas.

a. Work area--_____

_____

b. Trash--_____

_____

c. Aisles and traffic areas--_____

_____

d. Tools--_____

_____

e. Cleaning equipment--_____

_____

5. Describe the four classes of fire.

a. Class A--_____

_____

b. Class B--_____

_____

c. Class C--_____

_____

d. Class D--_____

_____

6. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 6. If additional study is required, discuss a study program with your instructor. Once you have completed that program to your instructor's satisfaction, continue to LAP Step 6.

ORIENTATION AND SAFETY
UNIT II
LAP ASSIGNMENT SHEET #3--APPLY RULES FOR FIRE SAFETY

NAME _____ SCORE _____

1. Name the three components of a fire.

   a. _____

   b. _____

   c. _____

2. Explain what is meant by "classes" of fire.

   _____

   _____

   _____

3. To put out a fire in a barrel of waste oil, a Class _____ extinguisher should be used.

4. To put out a fire in an electric motor, a Class _____ extinguisher should be used.

5. To put out a fire in a box of paper packing material, a Class _____ extinguisher should be used.

6. When should you notify your instructor in the event of a fire? _____

   _____

7. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 9. If additional study is required, discuss a study program with your instructor. Once you have completed that program to your instructor's satisfaction, continue to LAP Step 9.

ORIENTATION AND SAFETY
UNIT II
LAP ASSIGNMENT SHEET #4--INTERPRET THE USE OF
SAFETY COLORS IN THE SHOP

NAME _____ SCORE _____

1. Name the safety color which would be used to show:

   _____ a. A circuit breaker tripped by repair personnel working on equipment

   _____ b. The crushing jaws of a hydraulic press

   _____ c. The location of a first aid cabinet

   _____ d. A fire exit

   _____ e. A bundle of exposed electrical wiring on a shaper

   _____ f. A traffic way

   _____ g. A low stairway which goes over a traffic aisle

   _____ h. The emergency stop switch on a drill press

   _____ i. An eyewash shower

   _____ j. A storage container for heating oil

2. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 12. If additional study is required, discuss study program with your instructor. Once you have completed that program to your instructor's satisfaction, continue to LAP Step 12.

ORIENTATION AND SAFETY
UNIT II
LAP ASSIGNMENT SHEET #5--EVALUATE SITUATIONS
INVOLVING HAZARDS

NAME _____ SCORE _____

1. Place an "X" in the blank beside each statement below which descibes a safety violation or unsafe act.

   _____ a. Wearing goggles over your safety glasses when operating a grinder

   _____ b. Unplugging a horizontal band saw before you reconnect a wire which has come loose

   _____ c. Using a gloved hand to slow down a bit after the drill press power has been switched off

   _____ d. Wearing a hard hat when using a large radial drill press

   _____ e. Allowing the cutting fluid to dry before cleaning up a spilled mixture of cutting fluid and metal chips so that it will be easier to clean up the chips

   _____ f. Removing the spark arrestor to allow a clearer view of a part you are grinding to prevent getting your fingers in the wheel

   _____ g. Placing the chuck key on top of the lathe so that you can get to it quickly in case of an emergency

   _____ h. Using a Class C fire extinguisher on a Class A fire

   _____ i. Describing the steps in the grinding procedure to a student who will be doing the procedure as soon as she is done with the lathe operation that she is doing

   _____ j. Not bothering the instructor because you received a very minor bruise when a loose handwheel on a turret mill bumped your elbow

2. Stop. Have your instructor evaluate your Assignment Sheet. If your instructor is satisfied with your performance, continue to LAP Step 15. If additional study is required, discuss a study program with your instructor. Once you have completed that program to your instructor's satisfaction, continue to LAP Step 15.